

SEQ ID NO	Sequence
1	Ac-HSDAVFTDQYTRLRKQVAAKKYLQSIKQKRY
2	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKQKRY
3	Ac-HSDAVFTDQYTRLRKQVAAKKYLQSIKQK
4	Ac-HTEAVFTDQYTRLRKQVAAKKYLQSIKQKRY
5	Ac-HSDAVFTDQYTRLRKQLAVKKYLQDIKQGGT
6	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKQKR
7	Ac-HSDAVFTDQYTRLRKQAAKKYLQSIKOKRY
8	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKQKRY
9	Ac-HSDAVFTDQYTRLRKQMAAHKYLQSIKQKRY
10	Ac-HSDAVFTDQYTRLRKQMAAKHYLQSIKQKRY
11	Ac-HSDAVFTDQYTRLRKQMAKKYLQSIKQKR
12	Ac-HSDAVFTDQYTRLRKQMAKKYLQSIKQKR
13	Ac-HSDAVFTDQYTRLRKQMARKKYLQSIKQKR
14	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIKQKR
15	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIQPKR
16	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIQPKR
17	Ac-HSDAVFTDQYTRLRKQAAKKYLQSIROKR
18	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIQRR
19	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIQKA
20	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKQF
21	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKQH
22	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKQKI
23	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKQKK
24	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKQKL
25	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKQKM
26	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKQKP
27	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKQKQ
28	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKQKS
29	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKQKT
30	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKQKV
31	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKQKW
32	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKQKY
33	Ac-HSDAVFTDQYTRLRKQMAKKYLQSIKQRI
34	Ac-HSDAVFTDQYTRLRKQMAKKYLQSIKQRI
35	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIKQRI
36	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIQPKRI
37	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIRORI

FIG. 1a

SEQ ID NO	Sequence
38	Ac-HSDAVFTDNYTRLRKQVAAKKYLQS IKQKRY
39	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQKRY
40	Ac-HSDAVFTDNYTRLRKQVAAKKYLQS IKQK
41	Ac-HTEAVFTDNYTRLRKQVAAKKYLQS IKQKRY
42	Ac-HSDAVFTDNYTRLRKQOLAVKKYLQD IKQGGT
43	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQKR
44	Ac-HSDAVFTDNYTRLRKQLAAKKYLQTIKQKRY
45	Ac-HSDAVFTDNYTRLRKQMAAKKYLQTIKQKRY
46	Ac-HSDAVFTDNYTRLRKQMAAHKYLQS IKQKRY
47	Ac-HSDAVFTDNYTRLRKQMAAKHYLQS IKQKRY
48	Ac-HSDAVFTDNYTRLRKQMAKKYLQS IKQKR
49	Ac-HSDAVFTDNYTRLRKQMAKKYLQS IKQKR
50	Ac-HSDAVFTDNYTRLRKQMARKKYLQS IKQKR
51	Ac-HSDAVFTDNYTRLRKQMASKKYLQS IKQKR
52	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IPQR
53	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IQQKR
54	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IRQKR
55	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQRR
56	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQKA
57	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQKF
58	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQKH
59	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQKI
60	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQKK
61	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQKL
62	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQKM
63	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQKP
64	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQKQ
65	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQKS
66	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQKT
67	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQKV
68	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQKW
69	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IKQKY
70	Ac-HSDAVFTDNYTRLRKQMAKKYLQS IKQRI
71	Ac-HSDAVFTDNYTRLRKQMAKKYLQS IKQRI
72	Ac-HSDAVFTDNYTRLRKQMASKKYLQS IKQRI
73	Ac-HSDAVFTDNYTRLRKQMAAKKYLQS IPQRI
74	Ac-HSDAVFTDNYTRLRKQMASKKYLQS IRQRI

FIG. 1b

SEQ ID NO	Sequence
75	Ac-HSDAVFTDQYTRLRKQVAAKKYLQSIKNKRY
76	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKRY
77	Ac-HSDAVFTDQYTRLRKQVAAKKYLQSIKNK
78	Ac-HTEAVFTDQYTRLRKQVAAKKYLQSIKNKRY
79	Ac-HSDAVFTDQYTRLRKQMAAKKYLQDIKNNGT
80	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKR
81	Ac-HSDAVFTDQYTRLRKQLAAKKYLQTIKNKRY
82	Ac-HSDAVFTDQYTRLRKQMAAKKYLQTIKNKRY
83	Ac-HSDAVFTDQYTRLRKQMAAHKYLQSIKNKRY
84	Ac-HSDAVFTDQYTRLRKQMAAKHYLQSIKNKRY
85	Ac-HSDAVFTDQYTRLRKQMAKKYLQSIKNKR
86	Ac-HSDAVFTDQYTRLRKQMAKKYLQSIKNKR
87	Ac-HSDAVFTDQYTRLRKQMARKKYLQSIKNKR
88	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIKNKR
89	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKR
90	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIQNKR
91	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIRNKR
92	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNRR
93	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKA
94	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKF
95	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKH
96	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKI
97	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNK
98	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKL
99	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKM
100	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKP
101	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKO
102	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKS
103	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKT
104	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKV
105	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKW
106	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKY
107	Ac-HSDAVFTDQYTRLRKQMAKKYLQSIKNRI
108	Ac-HSDAVFTDQYTRLRKQMAKKYLQSIKNRI
109	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIKNRI
110	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIIPNRI
111	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIRNRI

FIG. 1c

SEQ ID NO	Sequence
112	Ac-HSDAVFTDQYTRLRKQVAAKKYLQS IKQKRYC-PEG
113	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKRYC-PEG
114	Ac-HSDAVFTDQYTRLRKQVAAKKYLQS IKOKC-PEG
115	Ac-HTEAVFTDQYTRLRKQVAAKKYLQS IKQKRYC-PEG
116	Ac-HSDAVFTDQYTRLRKQLA VKKYLQD IKQGGTC-PEG
117	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKRC-PEG
118	Ac-HSDAVFTDQYTRLRKQLA AAKKYLQTI KQKRYC-PEG
119	Ac-HSDAVFTDQYTRLRKQMAAKKYLQTI KQKRYC-PEG
120	Ac-HSDAVFTDQYTRLRKQMAAHKYLQS IKQKRYC-PEG
121	Ac-HSDAVFTDQYTRLRKQMAAKHYLQS IKQKRYC-PEG
122	Ac-HSDAVFTDQYTRLRKQMAAGKKYLQS IKQKRC-PEG
123	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKRC-PEG
124	Ac-HSDAVFTDQYTRLRKQMARKKYLQS IKQKRC-PEG
125	Ac-HSDAVFTDQYTRLRKQMASKKYLQS IKQKRC-PEG
126	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IPQKRC-PEG
127	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IQQKRC-PEG
128	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IRQKRC-PEG
129	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQRRC-PEG
130	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKAC-PEG
131	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKFC-PEG
132	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKHC-PEG
133	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKIC-PEG
134	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKKC-PEG
135	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKLC-PEG
136	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKMC-PEG
137	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKPC-PEG
138	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKQC-PEG
139	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKSC-PEG
140	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKTC-PEG
141	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKVC-PEG
142	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKWC-PEG
143	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQKYC-PEG
144	Ac-HSDAVFTDQYTRLRKQMAAGKKYLQS IKQRIC-PEG
145	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IKQRIC-PEG
146	Ac-HSDAVFTDQYTRLRKQMASKKYLQS IKQRIC-PEG
147	Ac-HSDAVFTDQYTRLRKQMAAKKYLQS IPQRIC-PEG
148	Ac-HSDAVFTDQYTRLRKQMASKKYLQS IRQRIC-PEG

FIG. 1d

SEQ ID NO	Sequence
149	HSDGIFTDSYSRYRKQMAVKYLAALGKRYKQRVKNK (PACAP38)
150	HSDGIFTDSYSRYRKQMAVKYLAAL (PACAP27)
151	HSDAVFTDNYTRLRKQMAVKYLN (VIP)
152	HSDAVFTDQYTRLRKQVAAKKYLQSIKQKRY
153	Ac-HTDAVFTDQYTRLRKQVAAKKYLQSIKQKRY
154	HSDAVFTDQYTRLRKQVAAKKYLQSIKQKRYC-PEG
155	Ac-HTDAVFTDQYTRLRKQVAAKKYLQSIKQKRYC-PEG

FIG. 1e

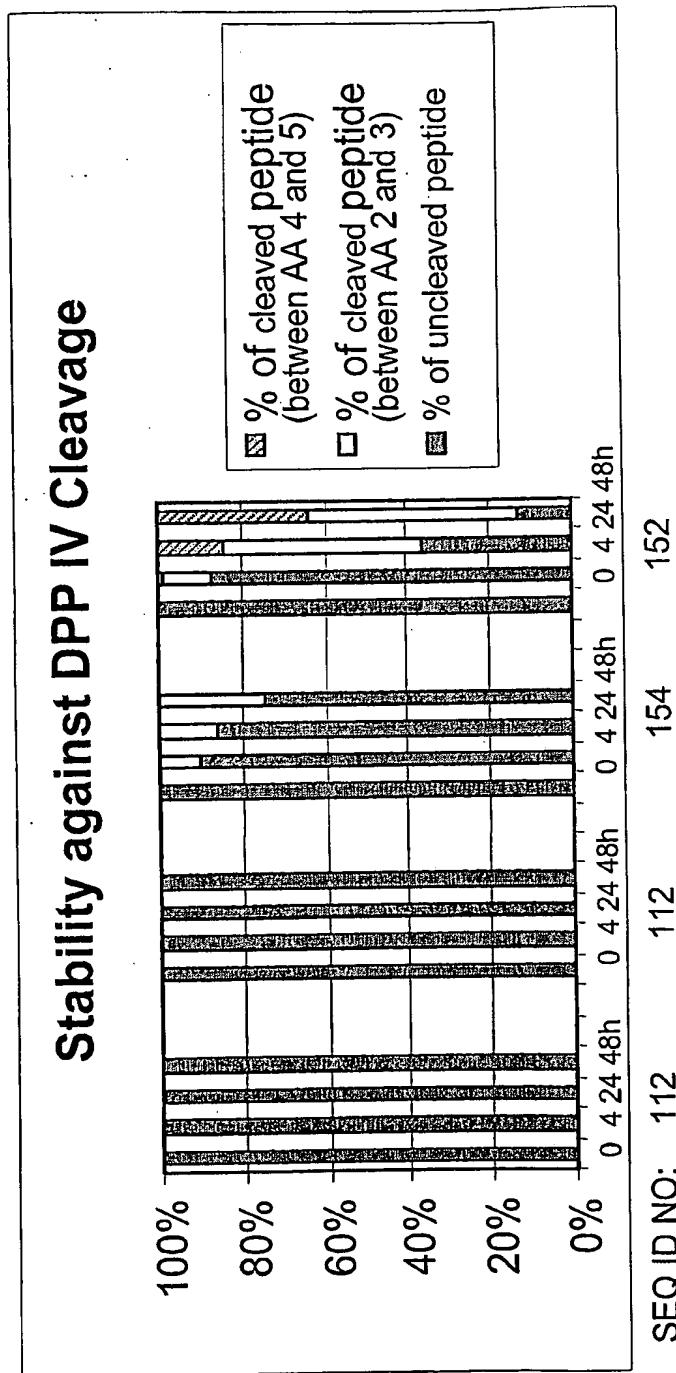


Figure 2a

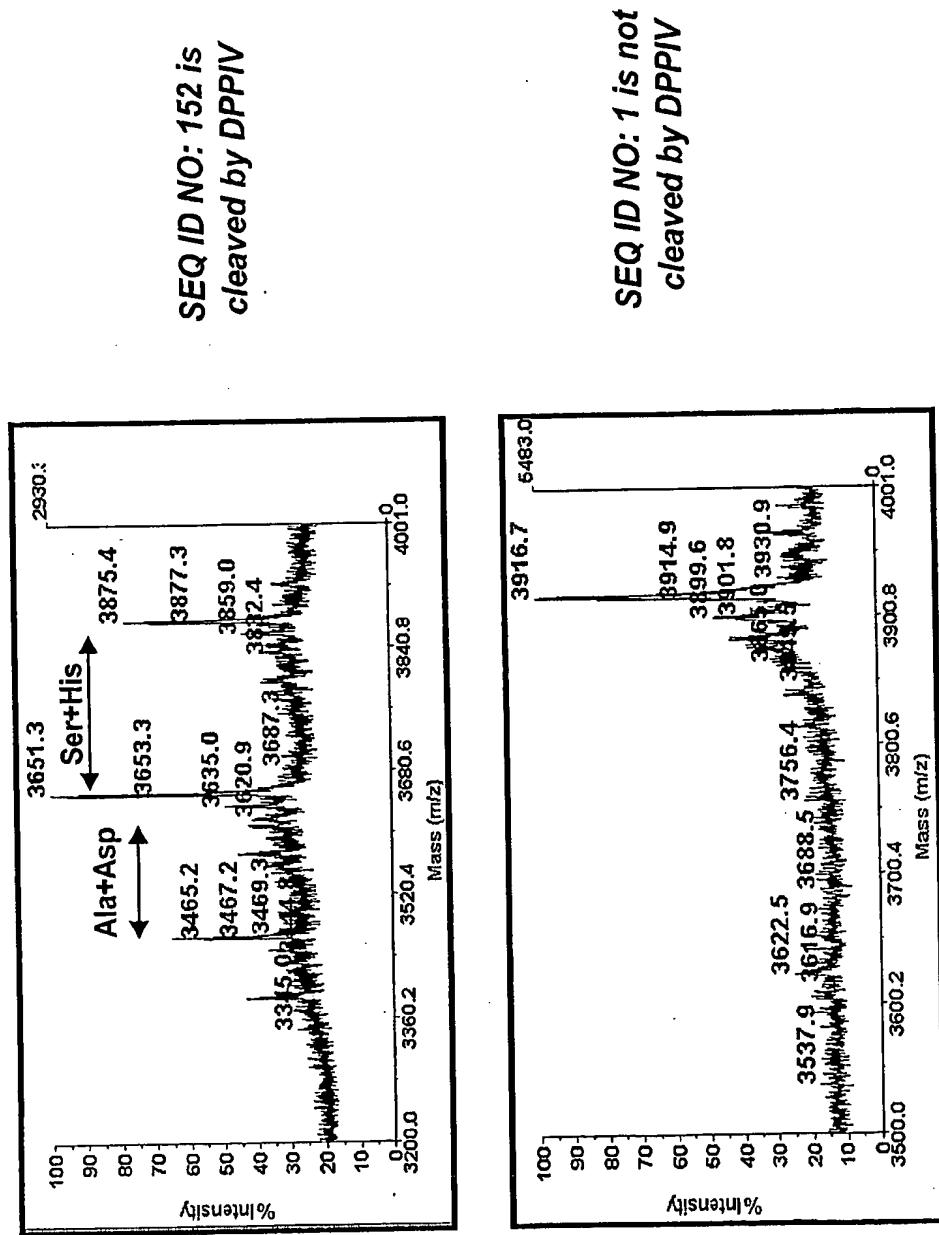


Figure 2b

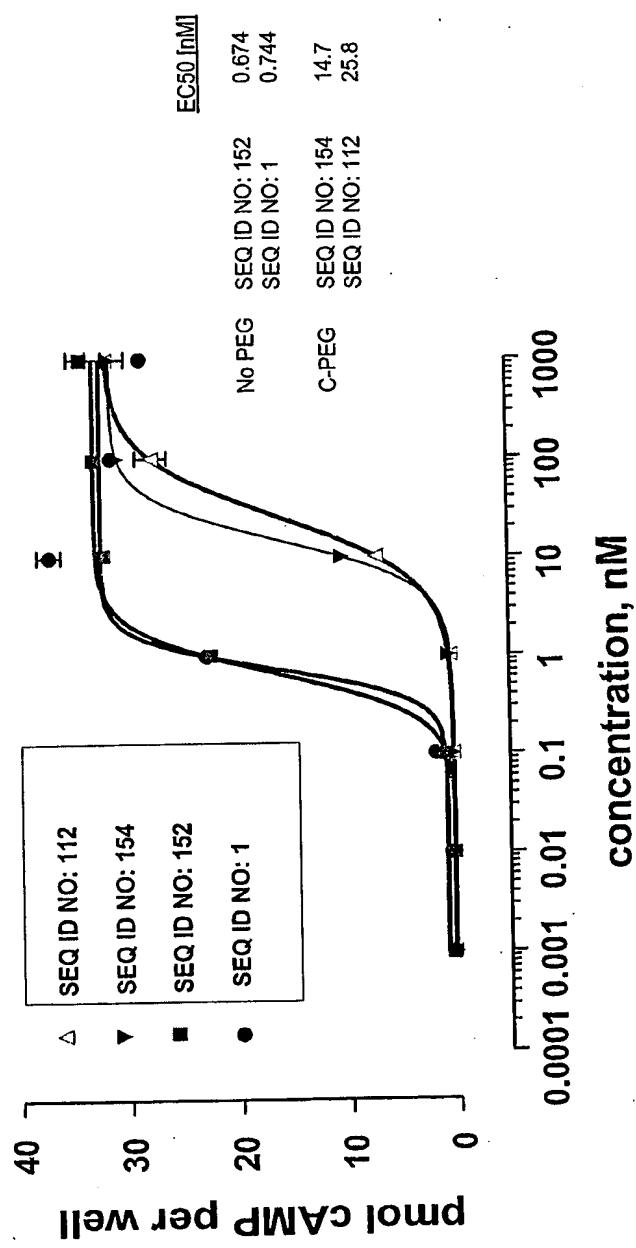


Figure 3

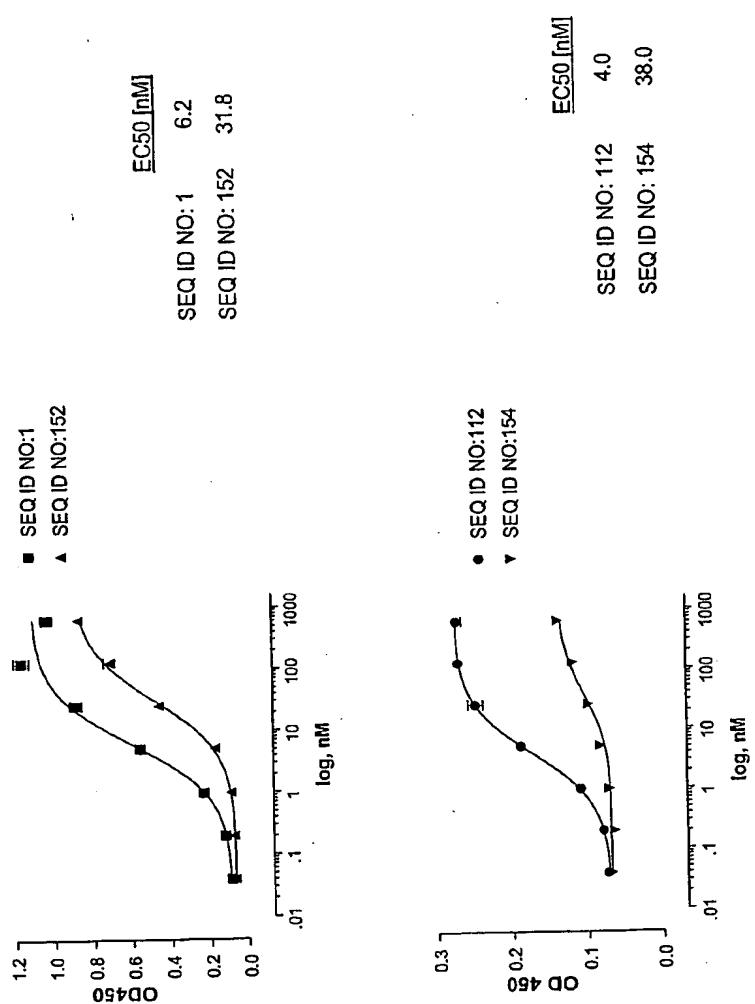


Figure 4a

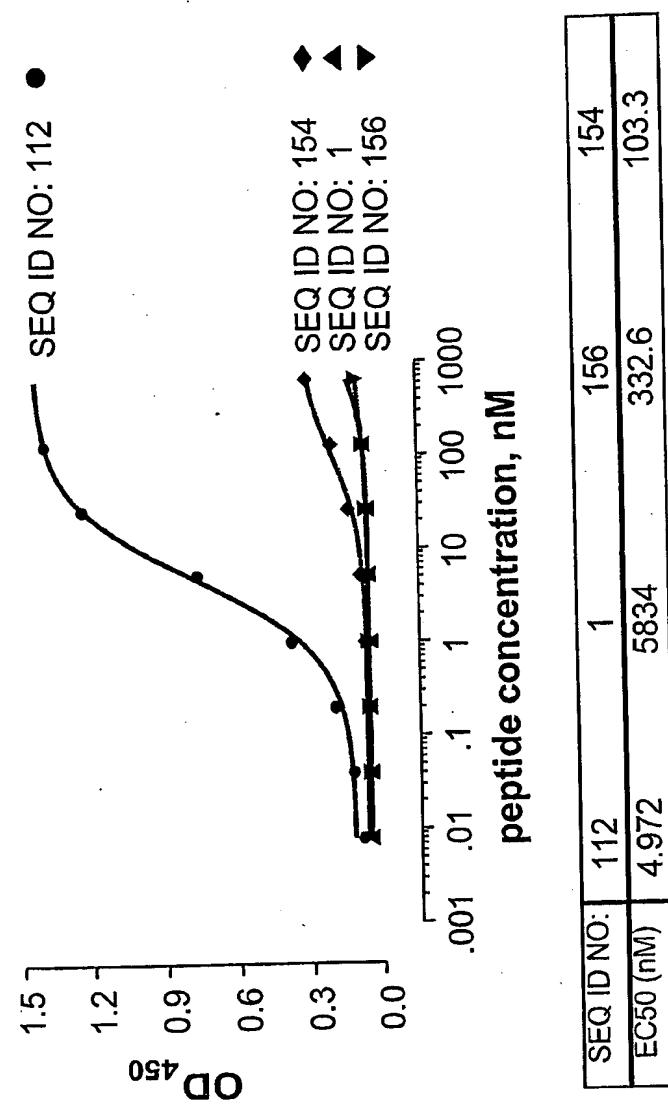
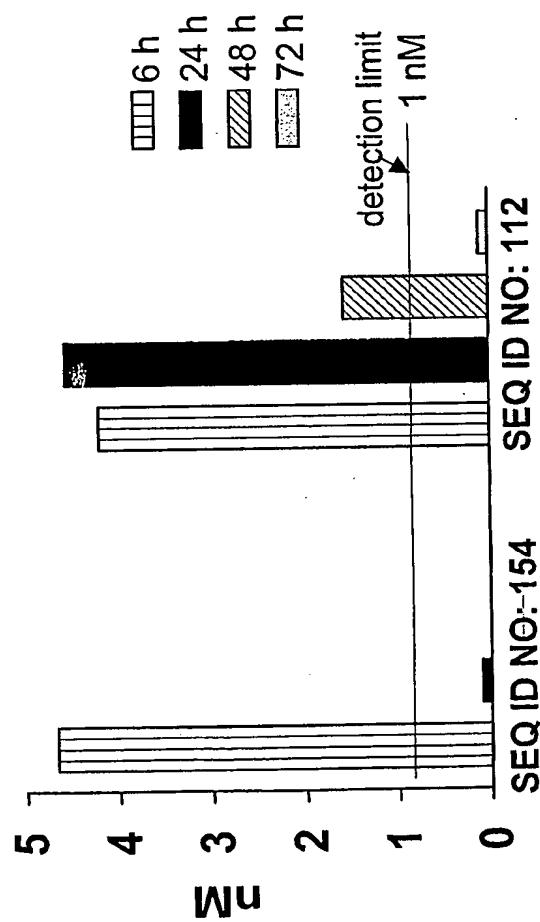


Figure 4b



	6 hrs	24 hrs	48 hrs	72 hrs
SEQ ID NO: 154	4.66 ± 0.43	< 1	< 1	< 1
SEQ ID NO: 112	4.21 ± 0.25	4.57 ± 0.37	1.56 ± 0.12	< 1

Figure 5a

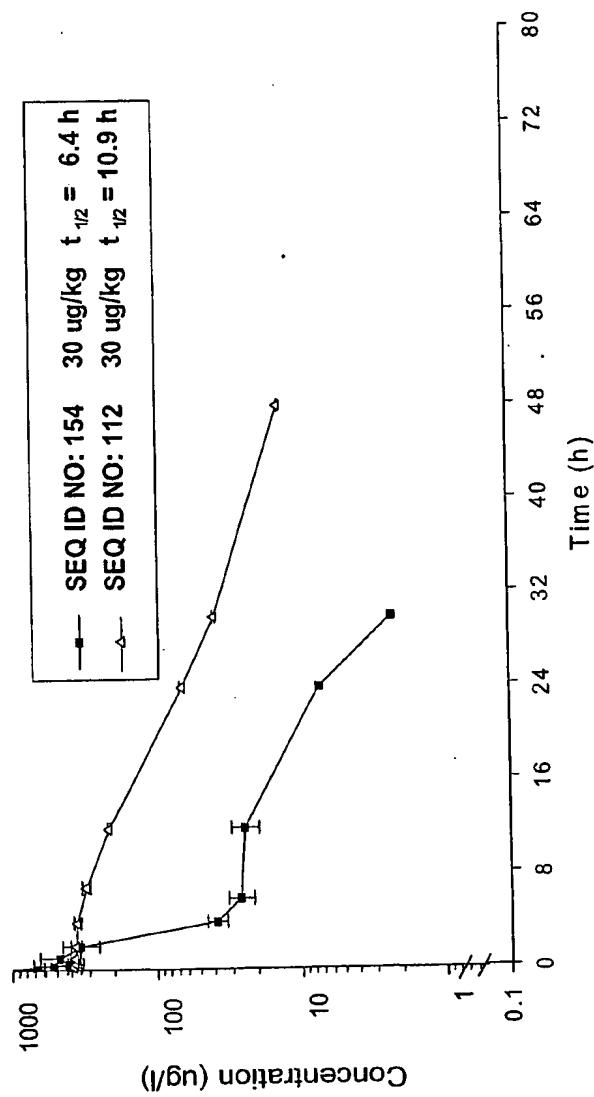


Figure 5b

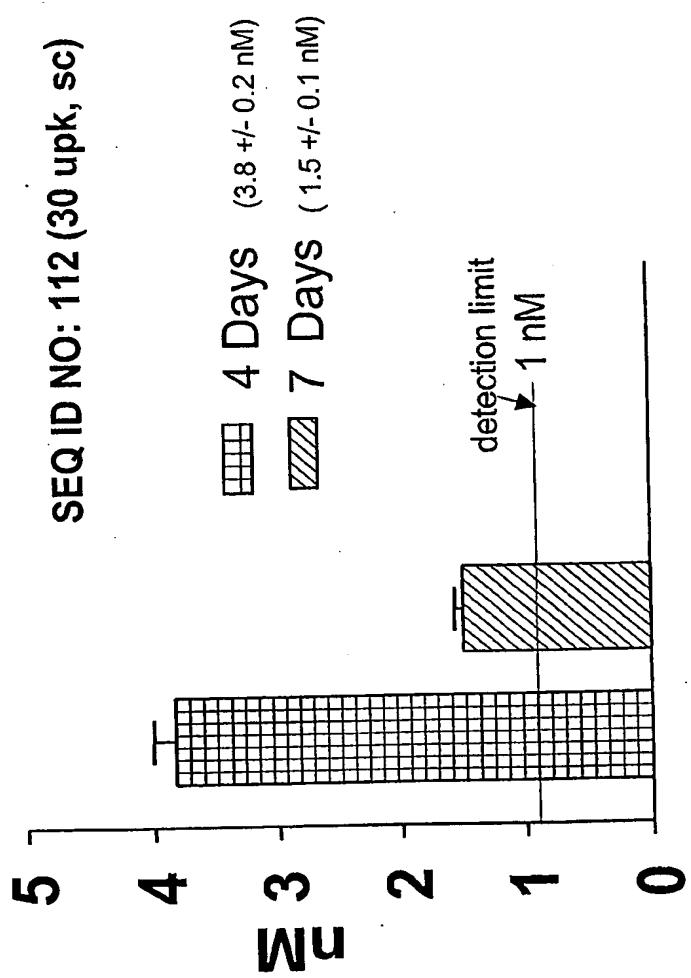


Figure 5c

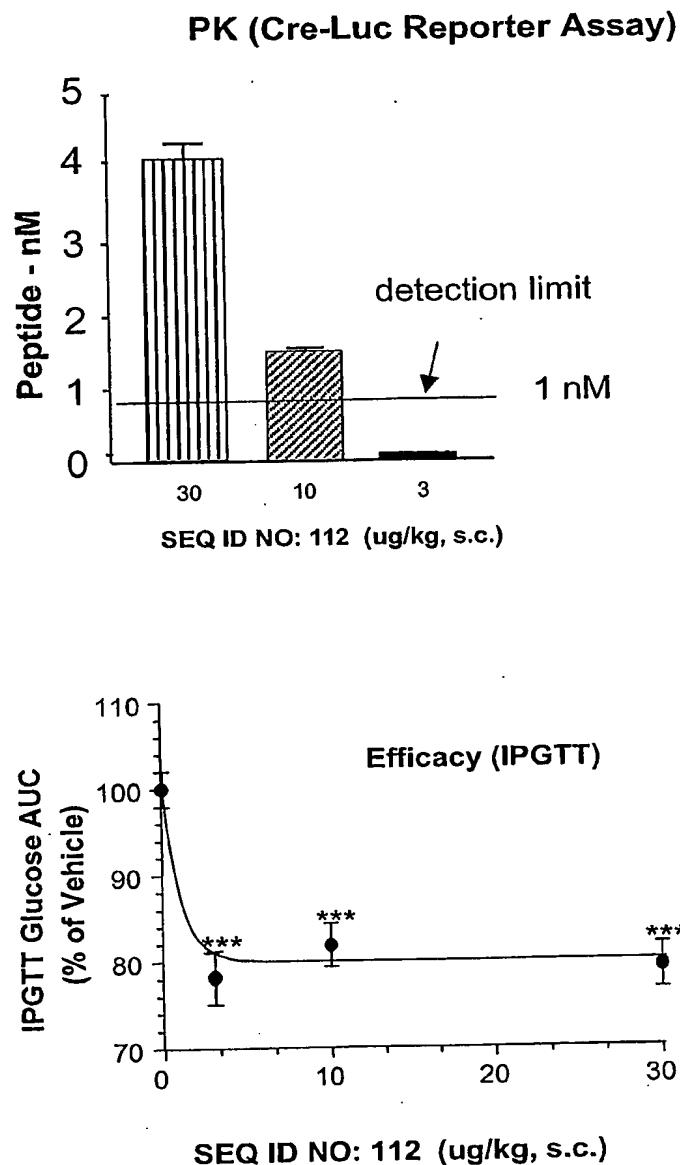
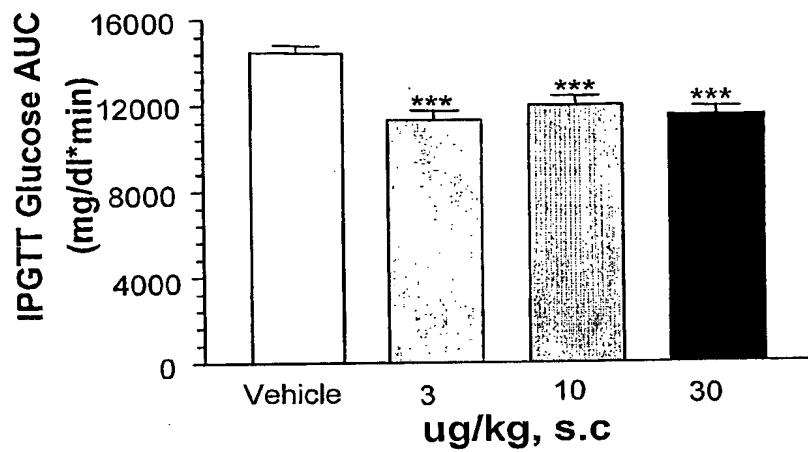
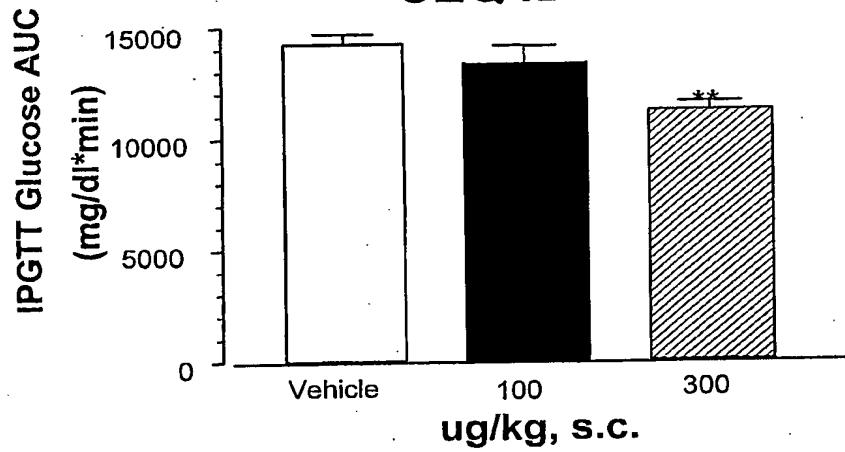


Figure 6a

SEQ ID NO: 112**SEQ ID NO: 154****Figure 6b**

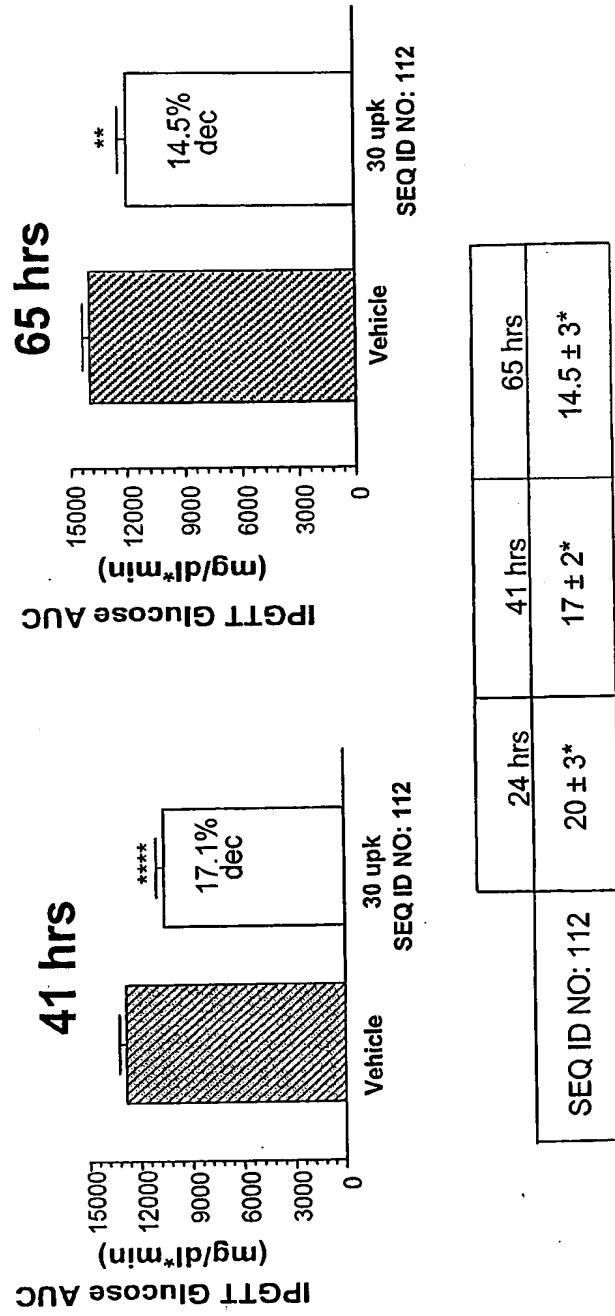


Figure 6c

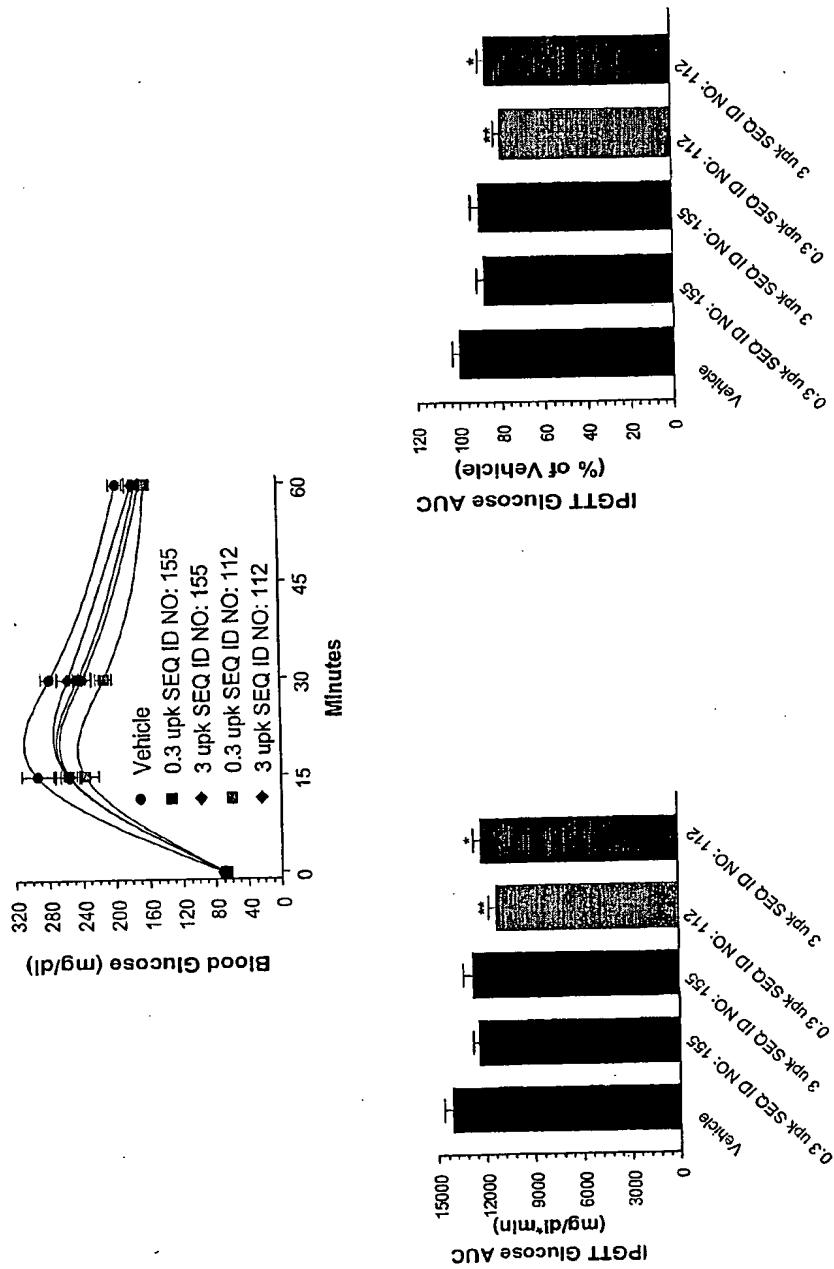


Figure 6d